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DISCUSSION PAPER

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Hamburgisches Welt-Wirtschafts-Archiv (HWWA)
Hamburg Institute of International Economics
Neuer Jungfernstieg 21 - 20347 Hamburg, Germany
Telefon: 040/428 34 355
Telefax: 040/428 34 451
e-mail: hwwa@hwwa.de
Internet: <http://www.hwwa.de>

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Hamburg Institute of International Economics (HWWA)
Neuer Jungfernstieg 21 - 20347 Hamburg, Germany
e-mail: hwwa@hwwa.de

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Head: PD Dr. Carsten Hefeker

Democracy and FDI

ABSTRACT

Many believe that multinational enterprises insensitively ignore political rights and civil liberties in the countries of their investments. Frequently, non-governmental organisations accuse multinationals of fostering repressive regimes in developing countries and consider foreign direct investment (FDI) as a tool of exploitation. This paper tries to examine empirically the complex relationship between democracy and FDI in a systematic way, using cross-sectional and panel data analysis. The results indicate that – on average – investments by multinationals are significantly higher in democratic countries, thereby refuting the hypothesis that political repression fosters FDI. Yet this positive link does not hold for the 1970s, when a considerable share of FDI flowed to countries with repressive regimes.

JEL Classification: C31, C33, F21, F23

Key Words: FDI, Democracy, Political Rights, Civil Liberties

Matthias Busse
HWWA – Hamburg Institute of International Economics
Department World Economy
Neuer Jungfernstieg 21
D-20347 Hamburg
Germany

Phone: +49-40-42834-435

Fax: +49-40-42834-451

E-mail: busse@hwwa.de

1. Introduction

The significant increase in foreign direct investment (FDI), or the growth of multinational enterprises' (MNEs) activities across countries, has been one of the most visible signs of the increasing globalisation of the world economy over the past couple of decades. Most international investments take place within developed countries and regions, such as Canada, the European Union, Japan and the United States, which made up three-quarters of global FDI inflows and some 85 per cent of outflows in the period 1990 to 2000 (UNCTAD, 2002). Though absolute FDI flows to developing countries¹ are relatively small, they increased enormously in the 1990s (Figure 1). The ratio of FDI inflows to GDP in these countries amounted to an annual average of 1.9 per cent in this period, while the same figure for high-income OECD countries was only 1.4 per cent, indicating a higher relevance of FDI to developing countries. Moreover, FDI to developing countries surpassed official development flows by a considerable amount: In 2000, FDI flows to developing countries totalled US \$167 billion, while foreign aid to these countries amounted to US \$56 billion (World Bank, 2002).²

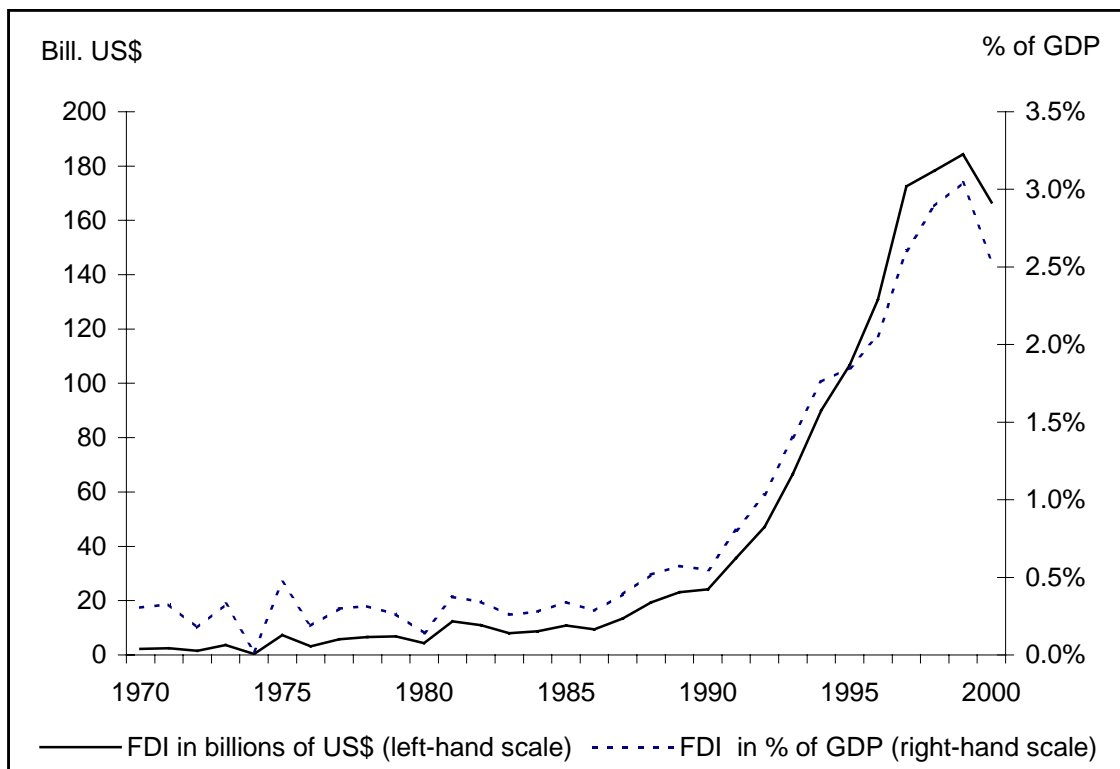
Critics of MNEs' activities claim that their expansion to developing countries might not be beneficial to those countries, and charge MNEs with robbing developing nations of their economic sovereignty and supporting repressive regimes (Meyer, 1998). In addition, where MNEs encounter the local population, critics argue, local workers endure an inherently uneven relationship. Multinationals are accused of using their market power to suppress local wages and working conditions. For example, Amnesty International (2002), a non-governmental organisation, has articulated its concern and reported on the actions of MNEs in developing countries as follows:

¹ Developing countries can be classified as low- and middle-income economies with a Gross National Income per capita in 2000 of US \$9,265 or less (World Bank, 2002). Using this definition, this group consists of 155 countries.

² According to the World Bank, foreign aid can be defined as official developing assistance and net official aid. Grants by official agencies of the members of the Development Assistance Committee are also included.

“Many transnational corporations operate in countries with repressive administrations where the rule of law is weak, where the independence of the judiciary is questionable, and where arbitrary arrest, detention, torture and extra-judicial executions occur. The government may ban free trade union activity and deny its citizens freedom of association. Factory workers in plants from which companies source their products may be subject to inhuman and degrading working conditions.”

Figure 1: Foreign Direct Investment in Developing Countries, 1970-2000



Source: World Bank (2002).

To support their claims, non-governmental organisations like Amnesty International present anecdotal evidence that MNEs have at least colluded with authoritarian foreign governments and backed the repression of the local population. For instance, it has been claimed that United Fruit supported a governmental overthrow in Guatemala, that ITT had a participating role in the topple of the elected Allende government in Chile, and that international extractive industries engaged in supportive relationships with repressive regimes in Myanmar (Unocal), Nigeria (Shell), and Columbia (British Petroleum) (Spar, 1999). Critics of MNE activities then go on and favour economic

sanctions against countries with repressive governments, which is assumed to be a particularly effective means of political change and improvement of human rights. To deny or withdraw foreign capital (and technology) from the target country is supposed to remove an important pillar of support for the repressive government.³

MNEs, in contrast, have made the case that human rights, and the issue of democracy in general, are best left to governmental policy in each country (Meyer, 1998). Moreover, they argue that FDI inflows will benefit developing economies, as FDI is likely to, above all, introduce new technologies, augment the capital stock of the host country, increase competition within key sectors of the economy, and benefit local workers through more and better-paid jobs. In short, it is claimed that FDI will increase GDP growth rates, decrease poverty and thus benefit the local population – whether or not the host country has a democratically elected government and respects human rights.⁴

In view of these fundamentally divergent positions and the attention the issue of activities of multinationals in developing countries has gained, it is rather surprising that only two studies have empirically explored the linkage between democracy and FDI. The first attempt was made by Rodrik (1996), who regressed an indicator for democracy (and a number of control variables) on the value of investment by majority-owned United States affiliates abroad. His democracy indicator is statistically significant and the coefficient implies that countries with weaker democratic rights attract less United States capital.

The second attempt basically supported the results of the first study: Focussing on 62 developing and emerging market economies, Harms and Ursprung (2002) found that MNEs are more likely to be attracted by countries in which democracy is respected. Similar to Rodrik, Harms and Ursprung concluded that there is little evidence that weak democracies provide a haven for foreign investors. Yet both studies concentrated their

³ Though sanctions are popular, their record of success has been rather limited. See Hufbauer et al. (1990, 1997) for an extensive economic analysis of economic sanctions.

⁴ See Carkovic and Levine (2002) for a survey of the extensive literature on FDI and economic growth. Overall, they observe contradictory evidence: While firm-level studies find that FDI does not boost economic growth, macroeconomic studies, using aggregate FDI flows, tend to suggest the opposite.

empirical analysis on FDI flows for the 1990s. So far, there has not been any attempt to include longer time periods, for instance, taking into consideration the investment behaviour of MNEs in the 1970s and 1980s, thereby analysing the linkage between democracy and FDI in a more systematic way. This paper tries to fill that gap.

Against this background, the paper focuses on three issues: (1) whether democracy affects FDI flows (and vice versa); (2) whether that linkage has changed over time; and (3) if so, what has contributed to that change. In the following section, the data, that is, the control variables and the indicators for the level of democracy used in the regressions, are introduced. Section 3 presents the results of the panel data analysis of the linkage between democracy and FDI, while Section 4 focuses on cross-sectional analysis. Next, Section 5 discusses the likely reasons for the empirical results, namely, the contributing factors of the observed change in the relationship between democracy and FDI. Finally, the paper concludes with a summary of the major results in Section 6.

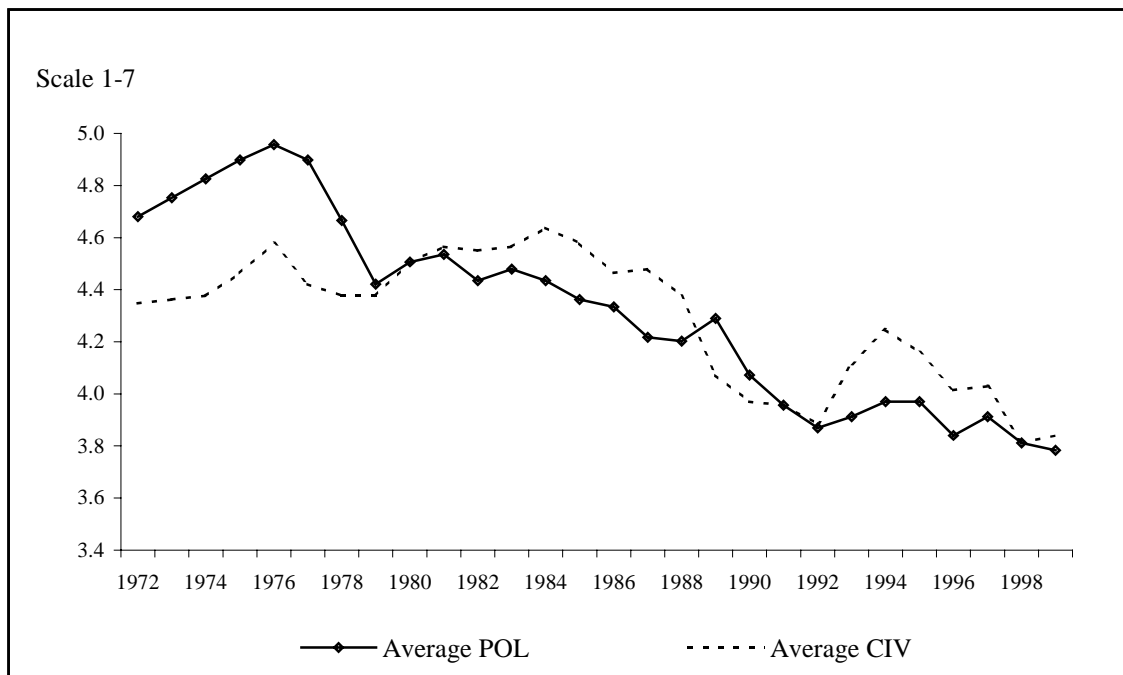
2. Data

The analysis in this paper covers the period 1972 to 1999 for a sample of 69 developing and emerging market countries. The choice of countries and the period is based on the availability of consistent data. Moreover, the main focus of the analysis, the linkage between democracy and the activities of MNEs, is a major concern for developing and emerging market economies, not for high-income countries. Included are those countries with a Gross National Income per capita in 2000 of US \$9,265 or less and for which data on all variables included in the regressions are obtainable (see Appendix C for the country sample).⁵ The starting point of the analysis is restricted by the availability of the two democracy indicators: political rights and civil liberties. They are provided by Freedom House (2002), a non-governmental organisation, based in the United States.

⁵ The income threshold is based on a definition by the World Bank (2002) for lower- and middle-income developing countries (see Footnote 1). Though the 69 sample countries make up less than half (44 per cent) of the total number of developing countries (155 countries), they had a share of 66.4 per cent of all FDI flows to developing countries in 1999.

Since 1972, Freedom House has surveyed all countries in the world regarding democratic rights by providing a single measure for both indicators. According to Freedom House, political rights (the variable will be called *POL*) enable people to participate freely in the political process, including enjoying the right to vote and compete for public office and to elect representatives who have a decisive vote on public policies. Civil liberties (*CIV*), on the other hand, include the freedom to develop views, institutions, and personal autonomy without interference from the state. Each indicator is measured on a scale from 1 to 7, with higher values indicating *fewer* rights and liberties. For the 69 countries in the sample, (average) figures for political rights and civil liberties declined from 1972 to 1999, indicating improved rights and liberties (Figure 2).⁶

Figure 2: Change of Democracy Indicators in Developing Countries, 1972-1999



Source: Freedom House (2002). The figures represent averages for *POL* and *CIV* for the 69 countries in the sample.

In general, the Freedom House indicators are widely recognised (and used) as a high-quality measure of democratic rights in empirical analysis (Bollen, 1993; Bollen and

⁶ See also the descriptive statistics for both variables in Appendix B.

Paxton, 2000).⁷ Yet critics argue that both indicators are rather crude approximations and biased in favour of Western democracies and/or Christian nations (Poe and Tate, 1994). Notwithstanding these criticisms, both Freedom House indicators are highly correlated with other measures of democracy. For instance, according to calculations by Bollen (2000), the partial correlations of the Freedom House indicators with the two other widely used indicators of democracy, provided by Sussman (1982) and Bank (1979), are above 0.90, indicating a very high positive linkage. The same result has been obtained by Quinn and Woolley (2001), who compared the Freedom House indicators first with the democracy scale of the Polity III indicator, provided by Jagers and Gurr (1996) and second with the democracy indicator computed by Alesina and Rodrik (1994). In contrast to these other measures of democracy, the Freedom House indicators have the advantage of being consistent and available for a longer period of time and will thus be used in the following empirical analysis.

As the dependent variable in the following regressions, FDI inflows per capita (*FDI*) will be employed.⁸ Using per capita figures allows us to take the relative country size into account. To control for factors other than democracy, four variables are used in the OLS regressions:

- (1) Gross National Income per capita (*GNI*) to control for the market size;
- (2) the real growth rate of GNI per capita (*GROWTH*) for market growth and potential;
- (3) the ratio of imports and exports to GDP (*OPENNESS*) to control for openness to trade; and
- (4) the black-market premium for foreign currency (*BMP*) as a proxy for policy distortions.

The inclusion of the first three variables has been inspired by the findings of Chakrabarti's (2001) survey of the literature on the determinants of foreign investment.

⁷ Over recent years, for instance, Helliwell (1994), Rodrik (1996), Burkhart and Lewis-Beck (1997), Keefer and Knack (1997), Quinn and Woolley (2001), and Harms and Ursprung (2002) have used the Freedom House indicators.

⁸ See Appendix A for a definition of all variables and data sources. Most of the data has been obtained from the World Development Indicators, provided by the World Bank (2002).

According to his findings, only these three variables have a statistically significant influence on FDI in all (or at least the vast majority of) studies and are expected to be positively associated with foreign investment inflows. The black-market premium for foreign currency has been added to include various forms of policy distortions, such as fiscal and monetary imbalances, capital controls, and corruption, in the case that a country is using exchange rate controls (Reinhart and Rogoff, 2002). Other indicators that are likely to have an influence on FDI flows, for example, the level and predictability of corruption, are not available for the 1970s and 1980s. Yet *BMP* is likely to act as an (imperfect) substitute for these forms of distortions and is expected to be negatively associated with *FDI*.

A look at the partial correlations of all variables included in the empirical analysis shows that all correlations of the four control variables with FDI are in the expected directions (Table 1). *POL* and *CIV* are highly correlated with each other, indicating that political rights tend to go hand in hand with civil liberties. Moreover, both indicators for democracy are rather strongly negatively correlated with *FDI* in the considered period. Yet a simple correlation does not provide enough empirical evidence about the significance of that linkage, because the likely influence of the control variables has been omitted.⁹ For instance, in comparison to FDI flows, *POL* and *CIV* are even more negatively correlated with income levels, which implies that richer countries in the sample are associated with improved political rights and civil liberties.

⁹ See also Appendix B for the descriptive statistics of all variables.

Table 1: Correlation Matrix

Variable	FDI	GNI	GROWTH	OPENNESS	BMP	POL	CIV
FDI	1.00						
GNI	0.51	1.00					
GROWTH	0.21	0.23	1.00				
OPENNESS	0.10	0.07	0.09	1.00			
BMP	-0.13	-0.17	-0.05	-0.03	1.00		
POL	-0.43	-0.47	-0.26	-0.08	0.31	1.00	
CIV	-0.44	-0.53	-0.31	-0.21	0.35	0.89	1.00

Notes: See Appendix A for data sources. Note that correlation estimates are sensitive to the sample period. To eliminate significant fluctuations of single indicators, averages for four years have been computed. The values provided in the table are for the most recent period (1996 to 1999).

3. Panel Data Analysis

In general, panel data (or pooled time-series) analysis can be performed either by using a common intercept for all countries, the country-fixed effect or the country-random model. While a suitable F-test suggested not using a common intercept for all countries, the Hausman (1978) test statistic indicated that the fixed-effects model would be preferred. The specification of the model is as follows:

$$(1) \quad FDI_{ct} = \beta_c + \beta_0 GNI_{ct} + \beta_1 GROWTH_{ct} + \beta_2 OPENNESS_{ct} + \beta_3 BMP_{ct} \\ + \beta_4 DEMOCRACY_{ct} + TIME + e_{ct},$$

where β_c is the country-specific fixed effect, $TIME$ represents a time dummy to incorporate factors over time that are likely to have an effect on the countries in the sample and $DEMOCRACY_{ct}$ stands for the two Freedom House indicators POL and CIV (for country c and period t), which will be singly added to the benchmark regression. e_{ct} is an error term.

The results of the benchmark equation are reported in column 1 of Table 2. With the exception of the black-market premium, all control variables have the expected sign and are statistically significant at the 1 per cent level. Yet the overall fit of the model is rather low, indicated by the relatively low adjusted R^2 . Furthermore, the Durbin-Watson

statistic implies that there is a problem with autocorrelation. Adding *POL* and *CIV* to the control regression does not mitigate these problems. Even though the estimated coefficient for *POL* is negative, it is not statistically significant; the coefficient for *CIV*, on the other hand, is even positive (and significant at the 10 per cent level).

Four issues are likely to contribute to the rather poor overall fit of the model and/or to come up in the empirical analysis: (1) the low variation of the democracy indicators, (2) the issue of time-lags, (3) the problem of causation, and (4) the specification of the model. First, there is the relatively low variation of *POL* and *CIV*. Any attempt to undertake time-series analysis to investigate the linkage between democracy and FDI is likely to suffer from the absence of sufficient variation in the democracy indicators. Yet the dependent variable, FDI flows on a country level, can fluctuate enormously from year to year, reflecting a large number of idiosyncratic influences particular to an individual country. These influences may go considerably beyond the main determinants described in the previous section.

Table 2: Panel Data Analysis, 1972-1999

Independent Variables	Dependent Variable: FDI					
	(1)	(2)	(3)	(4)	(5)	(6)
GNI	0.02*** (6.19)	0.02*** (6.19)	0.02*** (6.34)	0.02*** (5.76)	0.02*** (5.78)	0.02*** (5.90)
GROWTH	0.65*** (3.30)	0.65*** (3.27)	0.67*** (3.37)			
GROWTH (-2)				0.65*** (4.09)	0.64*** (4.08)	0.65*** (4.16)
OPENNESS	0.56*** (7.33)	0.57*** (7.41)	0.56*** (7.31)	0.58*** (6.93)	0.58*** (6.99)	0.57*** (6.93)
BMP	0.0003** (2.09)	0.0003** (2.25)	0.0002* (1.74)			
BMP (-2)				-0.0005*** (-6.86)	-0.0005*** (-6.63)	-0.0005*** (-6.48)
TIME	0.64*** (4.21)	0.60*** (4.03)	0.67*** (4.54)	0.86*** (4.99)	0.83*** (4.95)	-0.88*** (5.26)
POL		-0.98 (-1.23)				
POL (-2)					-0.73 (-0.76)	
CIV			1.84* (1.74)			
CIV (-2)						1.78 (1.46)
F-Value	16.73	16.53	16.56	16.10	15.89	15.91
Durbin-Watson	0.67	0.67	0.67	0.68	0.68	0.68
Adjusted R ²	0.37	0.37	0.37	0.38	0.38	0.38
No. of Obs.	1931	1931	1931	1793	1793	1793

Notes: See Appendix A for data sources; t-values, reported in parentheses, are based on White's (1980) correction for heteroskedasticity; multicollinearity has been tested by the creation of variance inflation factors (VIF); all regressions pass the test at conventional levels; *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

The second issue is the question of time-lags regarding decisions of MNEs about where to invest. It seems reasonable to assume that MNEs will respond only partially to changes in economic variables, as well as to changes in the level of democracy in the short term. Investment decisions may take time due to physical and procedural constraints (Jun and Singh, 1996). Hence, in a further set of regressions, *GROWTH*, *BMP*, *POL* and *CIV* are lagged for two periods to allow for a full adjustment in FDI flows. *GNI* and *OPENNESS* are not lagged, because there is not that much variation from year to year to which MNEs might respond (in the short term). What is more, significant policy changes are likely to affect the growth rate of GNI and the black-market premium first.

As can be seen from columns 4 to 6, the results do not change that much. The overall fit of the model is still rather low, and sign and significance of the explanatory variables are very similar. The only exception is the black-market premium for foreign currency, which is now negative and highly significant at the 1 per cent level. Moreover, these results hold, even if the lag period is reduced to from two to one.

Third, there is the problem of causality between democracy and FDI flows. The previous analysis assumed that both democracy indicators are exogenous. This assumption may not hold, if MNE activities in developing countries influence the level of democracy. Spar (1999) argued that FDI could improve the conditions in developing countries, either as a result of direct effects of their activity (improved workers' and human rights) or as an indirect result of an enhanced economic growth rate which might contribute to better political rights and civil liberties.

To answer this question, Granger causality tests were performed for each country in the sample. Since the Granger estimates are likely to suffer from the relatively small size of the sample (up to 28 observations for each country), the results should be treated with some caution.¹⁰ Two lags were used for the country-specific tests. While the results for all countries can be found in Appendix C, Table 3 provides a summary of the tests. In general, we do not find a clear and consistent pattern of causality. The results indicate that political rights are (slightly) more likely to attract FDI flows. For civil liberties and FDI we do not see a dominant and significant feedback from either variable.

¹⁰ To be more precise, Granger causality does not imply "causality" as defined in plain English, but rather "precedence" in a lead-lag relationship.

Table 3: Summary of Results of Granger Causality Tests

	Number of countries where F-test value indicates that			
	<i>POL</i> Granger causes <i>FDI</i>	<i>FDI</i> Granger causes <i>POL</i>	<i>CIV</i> Granger causes <i>FDI</i>	<i>FDI</i> Granger causes <i>CIV</i>
F-test for all countries	36	31	30	38
F-test is significant at least at the 90 per cent level	14	9	8	7

Note: See Appendix C for the results of all countries. The individual tests include two lags.

Finally, the specification of the model regarding the linear form might be questioned. In cross-sectional analysis, the determinants of FDI flows are frequently modelled in a double-log or semi-log form (Chakrabarti, 2001). In general, the overall fit and the significance of the coefficients improve considerably if FDI flows are used modelled in the log form.¹¹ On the other hand, since FDI flows on an annual base can be zero or negative, using the natural logarithm implies that the number of observations for the considered sample would drop by one fourth. More worryingly, excluding only those observations for a country and time period for which FDI inflows are zero or negative is likely to bias the country sample.

As a remedy, the data were sampled at 4-year intervals for 28 years from 1972 to 1999. Computing averages for four years yielded a very high number of positive observations for FDI flows. In the following regressions, a double-log model is employed:

$$(2) \quad \ln(FDI_{ct}) = \beta_c + \beta_0 \ln(GNI_{ct}) + \beta_1 GROWTH_{ct} + \beta_2 \ln(OPENNESS_{ct}) \\ + \beta_3 \ln(BMP_{ct}) + \beta_4 DEMOCRACY_{ct} + TIME + e_{ct},$$

where t now stands for 4-year averages, that is, 1972-75, 1976-99, and so on. Only for the growth rate of GNI has the log form not been computed, since there is still a considerable number of negative figures.

¹¹ A suitable Cox-Box test confirms this result for the countries in the sample.

Table 4: Panel Data Analysis, 1972-1999 (4-Year Intervals)

Independent Variables	Dependent Variable: ln (FDI)					
	(1)	(2)	(3)	(4)	(5)	(6)
ln (GNI)	0.86*** (5.47)	0.85*** (5.39)	0.86*** (5.14)	0.84*** (4.49)	0.81*** (4.28)	0.82*** (4.38)
GROWTH	0.05*** (3.03)	0.05*** (2.99)	0.05*** (2.98)			
GROWTH (-1)				0.06*** (3.29)	0.06*** (3.36)	0.06*** (3.28)
ln (OPENNESS)	1.57*** (5.69)	1.60*** (5.84)	1.60*** (5.81)	1.70*** (5.49)	1.74*** (5.60)	1.72*** (5.61)
ln (BMP)	-0.10*** (-3.48)	-0.11*** (-3.53)	-0.10*** (-3.41)			
ln (BMP (-1))				-0.07** (-2.41)	-0.08*** (-2.68)	-0.08*** (-2.42)
TIME	0.11*** (3.53)	0.11*** (3.10)	0.18*** (3.27)	0.19*** (4.96)	0.17*** (4.26)	0.18*** (4.79)
POL		-0.05 (-1.11)				
POL (-1)					-0.14*** (-2.95)	
CIV			-0.07 (-1.21)			
CIV (-1)						-0.10* (-1.70)
F-Value	15.14	14.95	14.95	15.15	15.31	15.0
Durbin-Watson	1.61	1.61	1.60	1.78	1.81	1.80
Adjusted R ²	0.70	0.70	0.70	0.73	0.74	0.73
No. of Obs.	435	435	435	376	376	376

Notes: See Table 2; *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

The results for the benchmark regression, reported in column 1 of Table 4, show that all determinants of *FDI* have the expected signs and are statistically significant at the 1 per cent level. Moreover, the overall fit of the model has improved considerably and the problem of autocorrelation has been reduced. The computed *d* value of the Durbin-Watson test is now in the zone of indecision, that is, the hypothesis of autocorrelation cannot be accepted or rejected. The coefficients for *POL* and *CIV*, reported in columns 2 and 3 respectively, are negative, but not significant.

To see whether time-lags also have an influence on FDI flows, a lag of one period - that is, four years - has been applied to *GROWTH*, *BMP* and both democracy indicators. Now, the overall fit of the benchmark regression (column 4) has increased further, with a slightly improved adjusted R², and the *d* value of the Durbin-Watson test rejects the hypothesis of autocorrelation. Moreover, *POL* and *CIV* still have a negative sign

(columns 5 and 6), but they are significant at the 1 and 10 per cent level. These results indicate that enhanced political rights and civil liberties are associated with higher FDI inflows per capita.

4. Cross-Section Analysis

Following the panel data analysis of the relationship between democracy and FDI in the considered period of 28 years, we now turn to the cross-sectional technique, using averages for specific periods of time. While time-series analysis is best suited to investigate changes over time, cross-sectional analysis can provide additional information about the extent of that linkage with respect to certain periods. More specifically, annual averages for all variables have been computed for three periods - 1972-79, 1980-89 and 1990-99 - to compare the link between democracy and FDI in the 1970s, 1980s and 1990s.

In Table 5, the estimation results for the regressions are reported. Similar to the panel data analysis with 4-year intervals, a double-log model has been chosen. As can be seen from the results for the benchmark regression for the 1990s, reported in column 7, all explanatory variables have the expected positive sign and are statistically significant (with the exception of *BMP*) at the 1 per cent level. In the remaining columns for the period 1990-99, the coefficients for political rights and civil liberties indicate that both are positively associated with FDI inflows. The statistical significance of *POL* and *CIV* increases further to the 1 per cent level if a sub-period of 4 years from 1996 to 1999 is considered (columns 10 to 12). This implies that there is a strong positive linkage between democracy and FDI in the late 1990s. In other words, countries with a higher level of political rights and civil liberties received more FDI per capita than would have been forecasted on the basis of the other country characteristics. This finding is basically in line with the results reported by Rodrik (1996) and Harms and Ursprung (2002).

Table 5: Cross-Country Analysis, 1972-1999

Independent Variables	Dependent Variable: ln (FDI7279)			Dependent Variable: ln (FDI8089)			Dependent Variable: ln (FDI9099)			Dependent Variable: ln (FDI9699)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	-9.22*** (-3.67)	-9.49*** (-3.78)	-9.29*** (-3.56)	-11.4*** (-5.05)	-7.91** (-2.15)	-6.47* (-1.69)	-9.4*** (-5.63)	-8.34*** (-4.69)	-7.28*** (-3.71)	-9.77*** (-6.06)	-7.86*** (-4.63)	-6.24*** (-3.30)
ln (GNI)	1.20*** (6.07)	1.22*** (5.44)	1.20*** (5.24)	1.38*** (4.74)	1.01** (2.35)	0.93** (2.24)	1.12*** (6.51)	1.03*** (5.82)	1.01*** (5.69)	1.32*** (8.36)	1.16*** (7.15)	1.14*** (7.14)
GROWTH	0.07 (0.76)	0.07 (0.76)	0.07 (0.76)	-0.007 (-0.09)	-0.06 (-0.59)	-0.04* (-0.44)	0.23*** (3.15)	0.19*** (2.64)	0.20*** (2.73)	0.01 (0.14)	-0.006 (-0.10)	-0.02 (-0.30)
ln (OPENNESS)	0.68 (1.23)	0.69 (1.24)	0.69 (1.26)	1.03*** (3.15)	1.13*** (3.09)	1.12*** (3.12)	0.99*** (3.44)	1.02*** (3.59)	0.91*** (3.24)	0.86*** (2.81)	0.87*** (2.99)	0.71** (2.42)
ln (BMP)	-0.12* (-1.86)	-0.12* (-1.80)	-0.12* (-1.86)	-0.30* (-1.92)	-0.34* (-1.94)	-0.34** (-1.99)	-0.09 (-0.79)	-0.06 (-0.57)	-0.04 (-0.35)	-0.16 (-1.18)	-0.09 (-0.80)	-0.07 (-0.62)
POL		0.03 (0.24)			-0.32* (-1.68)			-0.16* (-1.66)			-0.24*** (-2.67)	
CIV			0.008 (0.05)			-0.50** (-2.02)			-0.29** (-1.99)			-0.44*** (-3.10)
Adjusted R ²	0.30	0.29	0.29	0.34	0.37	0.40	0.69	0.70	0.70	0.64	0.68	0.69
F-Value	8.07	6.36	6.35	9.58	8.78	9.66	36.70	30.73	31.56	30.28	28.09	29.57
No. of Obs.	67	67	67	67	67	67	66	66	66	67	67	67

Notes: See Table 2; *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

To see to what degree this outcome is consistent over time, let us have a look at the results for the 1970s and 1980s. While in the latter period the empirical findings are roughly similar to those for the 1990s, the period 1972-80 shows fundamentally different results. To begin with, the overall fit of the benchmark and the other regressions deteriorates significantly, indicating that there are other important determinants on the level of FDI flows that are not captured by the four explanatory variables. More importantly, the coefficients of *POL* and *CIV* are positive, though not statistically significant. This implies that the strong empirical link between democracy and FDI does not hold for the 1970s. In this period, MNEs were basically indifferent with respect to political rights and civil liberties in the host countries of their foreign investments.

5. Discussion of the Results

Following the presentation of the empirical evidence, we turn now to the likely reasons for the underlying change in the relationship between democracy and FDI. While that linkage is naturally quite complex, two likely factors may have contributed to the change in the investment locations towards developing countries with improved democratic rights. First, there has been a shift in the structure of FDI flows (and stocks) in developing countries from the primary sector (i.e. agriculture and raw materials) to manufacturing and services. According to Spar (1999), who first came up with this likely explanation, this shift has partly changed the motives and interests of MNEs in developing countries. To begin with, it is helpful to make a distinction between the varying motives of foreign investment. MNEs invest abroad for a variety of reasons: among others, they search for and extract resources or raw materials, try to reduce costs, look for new markets, or follow their international customers (Chakrabarti, 2001). Naturally, these different intentions tend to suggest diverse patterns of interaction and needs of MNE activities.

Spar noted that first-generation FDI in developing countries up to the 1970s was driven largely by a search for raw materials. Given these conditions, the firms in the extractive

industries depended to a large extent on good relations with the government of the host country. To secure their investment and (later on) profits, the MNEs had to protect and keep access to the natural resource. In a similar fashion, host country governments depended in some cases on the flow of foreign exchange from the MNE investment in their country. Since both sides thus had an interest in physically protecting the investment, connections between MNEs and the host government could have been expected to be close and the MNEs might have supported repressive regimes. The general population, on the other hand, did not have such close interaction with the foreign investor in the primary sector. Despite a number of additional jobs, there were few positive spillovers. Apart from the natural resources, MNEs were looking for low-cost labour, but did not consider the country of their operation as a market for their products.

In the 1980s and 1990s, other motives, such as using low-cost labour or being close to export markets, increasingly drove investment, in particular in manufacturing and services. As a consequence, MNEs became less dependent on governments in the host countries of their operations. While resource-based investment had to follow specific deposits and countries, foreign investors in manufacturing can choose from a much wider range of investment sites. More importantly, MNEs are not required to have such close links with repressive governments, as might have been the case in the past.

Unfortunately, testing Spar's hypothesis is very difficult due to the lack of reliable and consistent data. Disaggregated FDI data by sector and country/region are extremely hard to obtain.¹² Though the UNCTAD (1991, 1999, 2002) frequently notes in their annual World Investment Report that the structure of FDI flows (and stocks) in developing countries has changed, they do not provide sufficient data to confirm their claim. As a likely reason for this change, the UNCTAD (1999) notes that particularly the rapid increase in FDI in the 1980s and 1990s has been concentrated mainly in services and in technology-intensive manufacturing, thereby reducing the share of investments in raw materials, other primary products and resource-based manufacturing.

¹² Due to these data deficiencies, the sectoral breakdown of FDI data could not be included in the regressions.

Yet the data available shows that from 1988 to 1997 the share of FDI stocks in the primary sector declined considerably in Asia and Latin America (Table 6). On the other hand, more than 53 per cent of FDI stocks in Africa are still in the primary sector. This relatively high percentage indicates that access to natural resources remains the most important reason for activities of MNEs in Africa. The increase of the percentage has been caused mainly by higher US investment in Africa (UNCTAD, 1999). Yet US statistics for single years and industries, though not consistent over longer periods up to the 1970s, indicate that the share of FDI stocks in the primary sector in Africa was probably even higher in the 1970s (UNCTAD, 1991).

Table 6: Composition of FDI stocks in developing countries (percentage), 1988-1997

Sector	Africa		Asia		Latin America		Total (all countries)	
	1988	1997	1988	1997	1988	1997	1988	1997
Primary Sector	51.8	53.4	8.4	3.4	8.8	5.7	10.3	3.8
Manufacturing	20.8	26.8	61.7	61.5	67.3	38.8	62.1	59.5
Services	27.4	19.8	29.2	32.8	23.8	55.5	27.2	34.7
Total (all sectors)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: UNCTAD (1999). Notes: Asia refers to South, East and South-East Asia, Latin America includes the Caribbean. Figures for the sectors may not add up to 100 per cent due to unspecified FDI stocks.

Even though disaggregated FDI flows are not available for the period 1972 to 1999, and we thus cannot test Spar's hypothesis in an appropriate way, we are able to include a dummy for minerals for each country. *MINERALS* refers to the percentage of depletion of mineral stocks and includes bauxite, copper, iron, lead, nickel, phosphate, tin, zinc, gold, and silver (World Bank, 2002). If the percentage is above 5 per cent, *MINERALS* takes the value 1, otherwise 0. It provides information about whether or not minerals are extracted to a certain extent. All the minerals included are likely to be also extracted by MNEs and make up a considerable share of the total primary sector in each country.

Adding *MINERALS* to the cross-sectional regressions shows that this dummy variable is positive and statistically significant at the 10 per cent level in the 1970s and 1980s, indicating that there is a closer link between FDI and mineral extraction in this period (Table 7). In the 1990s, though positive, the variable becomes insignificant. These

results would basically support Spar's hypothesis. Yet we have to bear in mind that the dummy *MINERALS* has been set up in a rather crude way and does not directly relate to MNE activities in developing countries. Summing up, though difficult to prove, there is some evidence of a sectoral shift in FDI stocks from the primary sector towards manufacturing and services, but this does not hold for all countries/regions.

Table 7: Cross-Country Analysis including Minerals, 1972-1999

Independent Variables	Dependent Variables		
	ln (FDI7279) (1)	ln (FDI8089) (2)	ln (FDI9099) (3)
Constant	-11.24*** (-6.26)	-11.73*** (-6.75)	-8.83*** (-5.57)
ln (GNI)	1.24*** (5.59)	1.48*** (9.25)	1.05*** (5.95)
GROWTH	-0.007 (-0.13)	0.007 (0.12)	0.24*** (4.18)
ln (OPENNESS)	1.21*** (4.61)	0.89*** (3.32)	0.94*** (3.32)
ln (BMP)	-0.16** (-2.23)	-0.19 (-1.21)	-0.10 (-0.77)
MINERALS	0.50* (1.82)	0.47* (1.77)	0.20 (0.71)
Adjusted R ²	0.63	0.64	0.68
F-Value	20.16	23.29	29.46
No. of Obs.	55	63	66

Notes: See Table 2; *** significant at 1% level; ** significant at 5% level; * significant at 10% level. Note that the number of observations has been reduced in particular for the 1970s, due to the inclusion of *MINERALS*. The results of this regression are thus not directly comparable to those reported in Table 5. To save space, the regressions including POL and CIV have not been reported. In comparison to the figures presented in Table 5, significance and sign of the coefficients do not change much.

A second possible reason for the observed change in the link between democracy and FDI is the increasing attention the choice of investment deposits of MNEs are receiving. In the past, local or international non-governmental organisations were not well organised and did not attract much international attention. In part due to the expansion of global information flows, fostered by the advance of the Internet, that has changed fundamentally. Ironically, the same technologies that are enabling MNEs to exchange information around the globe, reduce transaction costs and thus expand their overseas operations significantly are also greatly enhancing the reach of non-governmental organisations (Letnes, 2002).

Conventionally, these activist groups have gathered largely at a local level, with limited funding and means for attaining an audience much beyond their own region or country. The spread of the Internet, however, has enabled non-governmental organisations to reach a significantly wider audience. Using e-mails and Internet homepages, activist groups can multiply the spread of the matter of concern at very low marginal costs. They can also build international electronic coalitions across similar activist groups, thereby increasing the influence of their combined effort (Ronfeldt and Thorup, 1995).

In turn, the increasing effectiveness of non-governmental organisations' campaigns may have contributed to a growing awareness of the general population in Western countries regarding the investment locations of MNEs. In many cases, substantial public attention is likely to have an influence on the choice of country by foreign investors. The advantages of securing access to low-cost resources in countries with repressive regimes have to be weighed against the possibility of protests by activist group, involving negative publicity and the costs of public relations and consumer protests in the form of boycotts.

This logic applies in particular to MNEs offering consumer products, as their brand names are a likely target for non-governmental organisations. In the late 1990s, this type of public pressure by activist groups led, for instance, to a significant withdrawal of MNE investments from and reduction of business links with Myanmar, where a military dictatorship has been in office since 1988 (MacCarthy, 2000). FDI flows to Myanmar dropped from US \$387 million in 1997 to US \$123 million in 2001 (UNCTAD, 2002). Similar to the change in the sectoral composition of FDI in developing countries, this type of public attention and pressure may have also contributed to the observed change in the choice of investment locations of MNEs.

6. Concluding Remarks and Summary of the Results

The above results are certainly not without shortcomings. In particular the availability of the data for a relatively long period of 28 years restricted the specification of the FDI model. Also, though some of the most important factors in explaining the level and variation of FDI were incorporated in the regressions, such as GNI per capita, economic growth rates, openness to trade and the black-market premium for foreign currency, others were not. Finally, the reasons for the observed change in the investment behaviour could not be empirically tested, since the required data, with respect to quantity and quality of the data, could not be obtained.

Bearing these shortcomings in mind, which could be overcome with an extension of this study as more better data become available, the main results of this paper and its contribution to the literature can be summarised as follows: First, for the 1990s, the regression results confirm the empirical findings by Rodrik (1996) and Harms and Ursprung (2002), namely, that MNEs appeared to be attracted by countries where political rights and civil liberties are protected. The often-cited hypothesis by non-governmental organisations that lower democratic rights boost foreign investment does not hold.

Second, the time-series analysis indicates that this linkage between democracy and FDI flows can be extended to the period from 1972 to 1999 for the 69 sample countries. Countries with improving democratic rights and liberties received more FDI per capita than would have been predicted on the basis of the other country characteristics. Yet the question of causation of this link could not have been answered conclusively. While Granger causality tests indicate that enhanced political rights can be expected to attract FDI flows, the results for civil liberties and FDI were rather indecisive.

Finally, cross-section regressions show that the positive and statistically significant relationship between democracy and FDI did not hold for the 1970s. In that period, MNEs were much more likely to invest in countries with repressive regimes, with significantly lower political rights of and civil liberties for the population. The shift

from the primary sector towards manufacturing and services as well as the increasing effectiveness of campaigns of non-governmental organisations against investments in countries with repressive governments have been discussed as the likely contributing factors for the observed change in the investment behaviour of MNEs.

Considering the major results of this paper, it might be argued that non-governmental organisations are fighting the wrong enemy. Yet their activities regarding the public awareness of MNEs' investments in countries with low democratic rights have probably contributed to the observed change. Accusing multinationals of misbehaviour seems to be a reasonable aim, as long as the claims made by activist groups do hold. Speaking out against foreign investment in general, which is one the most important driving forces of globalisation, on the other hand, is clearly not an appropriate economic objective and definitely not supported by the findings of this study.

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Appendix A: Definition of Variables and Data Sources

Variable	Definition	Source
FDI	Foreign direct investment per capita, net inflows in current US dollars	World Bank (2002)
GNI	Gross National Income per capita in current US dollars	World Bank (2002)
GROWTH	Real growth of Gross National Income per capita in per cent	World Bank (2002)
OPENNESS	Total ex- and imports divided by Gross Domestic Product	World Bank (2002)
BMP	Black-market premium for foreign currency (US Dollar) in per cent, calculated as: (parallel exchange rate/official exchange rate-1)*100	Pick's Currency Yearbook (various issues), World Currency Yearbook (various issues), World Bank (2001)
POL	Index for political rights, scale from 1-7	Freedom House (2002)
CIVIL	Index for civil liberties, scale from 1-7	Freedom House (2002)
MINERALS	Dummy for the extraction of minerals, such as bauxite, copper, iron, lead, nickel, phosphate, tin, zinc, gold, and silver	World Bank (2002)

Appendix B: Descriptive Statistics of the Variables, 1972-1999

Variable	Mean	Standard Deviation	Maximum	Minimum
FDI	19.5	55.6	782	-442
GNI	1,178	1,379	11,390	60
GROWTH	1.1	5.5	35	-40
OPENNESS	64.1	34.8	282	6
BMP	70.4	1,156	49,990	-10
POL	4.3	1.9	7	1
CIV	4.3	1.5	7	1

Note: See Appendix A for data sources.

Appendix C: Granger Causality Tests

Country	F-test value (POL→FDI)	F-test value (FDI→POL)	F-test value (CIV→FDI)	F-test value (FDI→CIV)
Algeria	0.05	0.78	0.07	0.27
Argentina	0.09	0.60	0.09	0.19
Bangladesh	0.88	0.12	0.12	0.03
Barbados	na	na	0.04	1.56
Benin	1.76	0.10	3.25*	0.24
Bolivia	0.93	0.43	0.99	1.02
Botswana	3.25*	0.90	1.40	0.68
Brazil	2.13	1.01	0.05	0.07
Burkina Faso	0.30	1.31	0.61	1.93
Burundi	0.16	8.16***	1.37	0.18
Cameroon	0.04	0.22	3.75**	1.98
Central African Republic	0.08	2.56	0.65	0.41
Chad	0.93	4.07**	0.46	0.04
Chile	0.13	0.17	0.55	0.66
Colombia	7.18***	3.57**	2.02	0.01
Congo, Dem. Republic	0.33	3.30*	0.28	0.16
Congo, Republic	1.31	0.17	1.27	0.85
Costa Rica	na	na	0.07	3.40*
Cote d'Ivoire	0.23	0.05	0.04	0.12
Dominican Republic	0.59	1.15	0.14	0.33
Ecuador	0.66	0.91	0.004	1.29
Egypt	1.27	0.16	0.12	1.84
El Salvador	2.19	0.25	0.94	1.39
Gabon	1.52	2.01	4.33**	0.31
Gambia	0.63	1.70	0.25	1.99
Ghana	0.38	1.82	2.24	0.36
Guatemala	1.07	0.58	0.53	3.18*
Guyana	0.41	1.24	0.15	2.58*
Haiti	1.96	1.21	0.04	1.11
Honduras	0.32	0.25	na	na
India	78.23***	1.64	0.48	0.13
Indonesia	44.62***	10.75***	1.46	1.71
Jamaica	1.21	0.87	0.88	0.32
Jordan	0.06	0.18	0.22	2.61*
Kenya	0.34	1.76	0.04	1.09
Korea (South)	3.19*	0.07	1.30	0.25
Lesotho	6.71***	0.53	0.33	0.63
Madagascar	1.97	1.78	0.43	0.60
Malawi	6.04***	0.46	8.38***	0.19
Malaysia	4.20**	0.06	0.06	2.50
Mali	5.42**	1.33	4.76**	0.86
Mauritania	3.85**	0.81	0.003	0.02
Mauritius	0.69	1.50	0.65	0.43
Mexico	1.45	0.56	0.80	0.08
Morocco	0.12	0.61	0.25	0.76
Nicaragua	3.76**	5.91***	1.98	1.48
Niger	0.74	0.26	1.38	1.71
Nigeria	1.79	0.45	3.01*	1.15
Pakistan	0.95	1.00	0.01	0.03
Panama	3.01*	0.84	0.81	1.11
Papua New Guinea	0.71	1.35	1.14	0.98
Paraguay	1.85	1.28	3.33*	0.25

Appendix C: Granger Causality Tests (cont.)

Country	F-test value (POL→FDI)	F-test value (FDI→POL)	F-test value (CIV→FDI)	F-test value (FDI→CIV)
Peru	0.64	0.45	2.63*	0.15
Philippines	2.08	0.69	2.35	0.35
Rwanda	1.02	3.69**	0.48	0.97
Senegal	1.49	0.58	0.31	0.51
Sierra Leone	0.78	0.05	0.01	0.13
Sri Lanka	7.98***	0.26	2.24	0.17
Swaziland	0.77	0.79	0.36	2.89*
Syrian Arab Republic	1.46	2.50	1.10	0.41
Thailand	0.19	0.63	0.66	1.62
Togo	0.18	0.08	0.59	0.09
Trinidad and Tobago	0.45	0.20	0.45	1.29
Tunisia	0.01	0.04	0.58	0.55
Turkey	0.01	1.33	0.73	0.83
Uruguay	0.29	0.10	0.72	0.86
Venezuela	4.00**	8.47***	2.35	5.68**
Zambia	1.54	2.61*	0.91	4.77**
Zimbabwe	0.19	2.19	0.36	0.12

Notes: *** significant at 1% level; ** significant at 5% level; * significant at 10% level; na: not available. The individual tests include two lags.